

***Bidens serboana* (Asteraceae: Coreopsideae), a new species from Oaxaca, Mexico****Billie L. Turner**

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**ABSTRACT**

A novel taxon, ***Bidens serboana*** B.L. Turner, **sp. nov.**, is described from Distrito Yautepec, Oaxaca, Mexico. It is presumably closely related to *Bidens minensis* but differs in numerous characters, including rayless heads and broad, imparipinnate, glabrous leaves. Published on-line: [www.phytologia.org](http://www.phytologia.org) *Phytologia* 95(1): 23-26 (Feb. 1, 2013).

**KEY WORDS:** Asteraceae, Coreopsideae, *Bidens minensis*, *Bidens odorata*, Mexico, Oaxaca

Preoccupation with the Comps of Mexico (cf. Turner 2010, etc.) has occasioned the present paper.

**BIDENS SERBOANA** B.L. Turner, **sp. nov.** **Fig. 1**

Resembling *Bidens minensis* Sherff in habit but having eradiate heads (vs white-rayed); more numerous disc florets (20-30 vs ca 15); larger leaves (8-11 cm long, vs 1-4 cm); and more coarsely ciliate, larger, achenes (20-30 mm long vs 10-12 mm).

**Annual herbs** (?), to 50 cm high. **Stems** (mid-section), 4-sided, minutely pubescent along the angles, ca 1.5 mm thick. **Leaves** (mid-stem), 8-12 cm long, 6-8 cm wide, tripartite, the segments thin and glabrous, mostly 1-4 cm long, 5-6 mm wide; petioles 2-4 cm long. **Capitulescences** arranged both axillary and terminal, the latter divaricately branched, ca 10 cm high, 20 cm across; ultimate peduncles 4-6 cm long, minutely pubescent with upturned hairs. **Involucral bracts** (outer) 8, linear-oblongate, 4-5 mm long; inner bracts 8, broadly lanceolate, ca 5 mm long. **Receptacular bracts** 4-6 mm long, linear-lanceolate, glabrous, brown on the dorsal surfaces. **Ray florets**, absent. **Disc florets** 20-40; corollas yellow, ca 3.5 mm long, glabrous. **Stamens** brown. **Achenes** (interior) 6-20 mm long, ca 1 mm wide, radially flattened, mostly glabrous, except for the margins which possess stiffly, up-curved hairs, with markedly swollen bases, the exterior achenes ciliate both marginally and dorsally, these grading into those of the interior.

**TYPE: MEXICO: OAXACA. Distrito Yautepec, Mpio. San Bartolo Yautepec, "El Palacio. Sabana. plano, suelo pedregoso."** 16 27 57.9 N, 95 58 0.3 W, ca 1559 m, 20/10/2011, *Dionisio Lopez Pascual* (DIL) 1606 (Holotype: TEX)

When first examined, I took this novelty to be closely clearly related to *Bidens odorata* var. *oaxacensis* Ballard, since it keyed to or near that taxon in the treatment of *Bidens* by Melchert (2010). However, it possesses a combination of characters unlike anything known in the *B. odorata* complex, namely, rayless heads and large, markedly tripartite, glabrous leaves with broad segments. Indeed, among the 60 or more specimens of var. *oaxacensis* housed in the LL-TEX herbarium, not a single sheet can be found that comes close to the novelty proposed herein, nor can rayless plants be found among them, not to mention the very distinct foliage.

Melchert, upon reading the above comments, suggested that the novelty might be more closely related to the poorly known **B. minensis** Sherff, this known only by the type (from Distrito Mina, Gue) and a single collection from 6 mi N of Taxco, Gue (*Rzedowski 2517*, TEX). My comparisons of the

collections concerned suggest that his observations are valid, hence my comments in the above diagnosis. Fig. 2 shows the distribution of **B. minensis** and the newly described **B. serboana**.

The species name is an acronym of the Sociedad para el Estudio de los Recursos Bioticos de Oaxaca (SERBO). This organization has helped fund the collection of numerous plants from the area concerned.

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#### LITERATURE CITED

- Melchert, T.E. 2010. *Bidens*, in Phytologia Memoirs 15: 3-56.  
Turner, B.L. 2010. The Comps of Texas. Subfamily Coreopsideae. Phytologia Memoirs 15: 1-224.

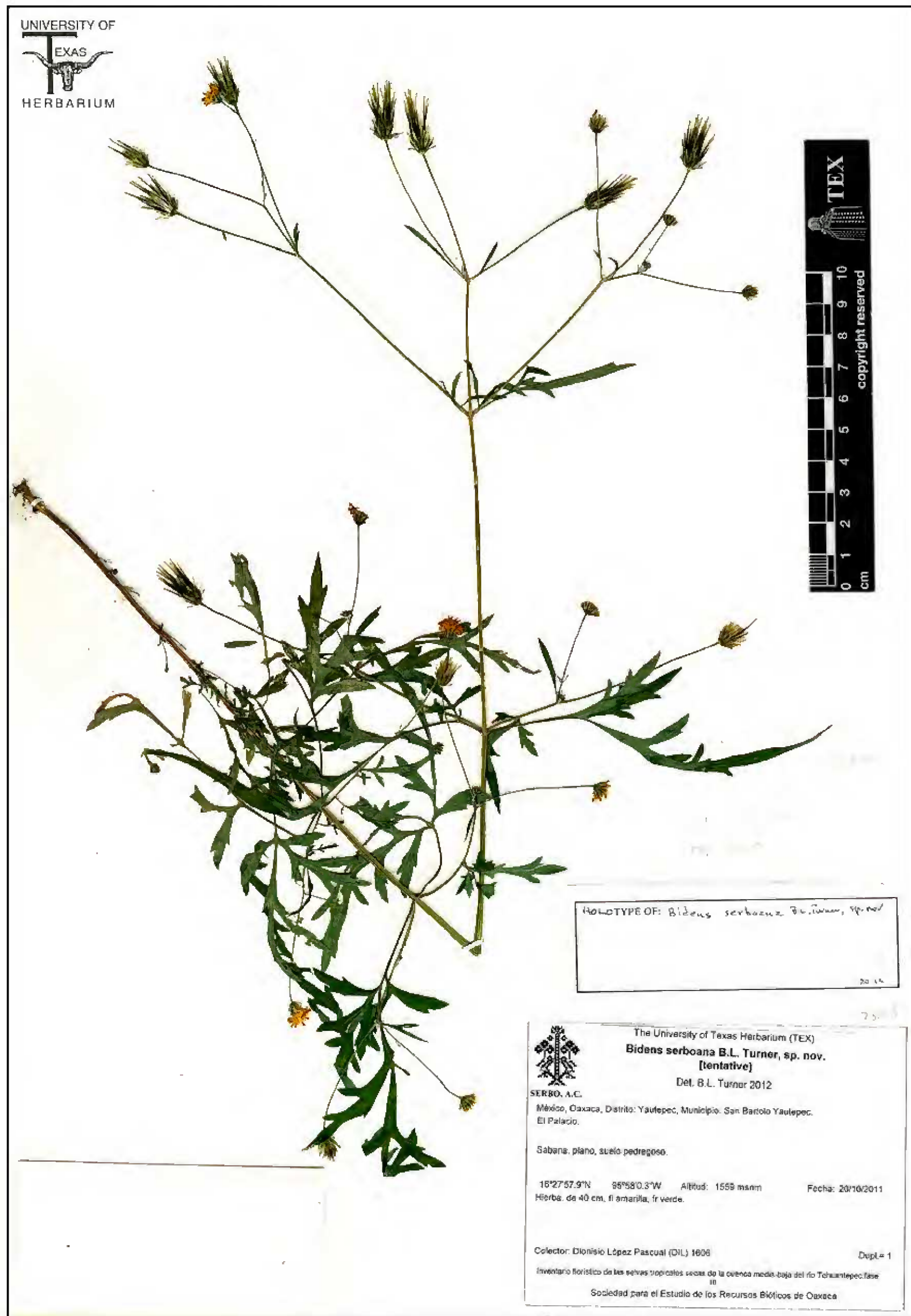


Fig. 1. *Bidens serboana* (Holotype: TEX).

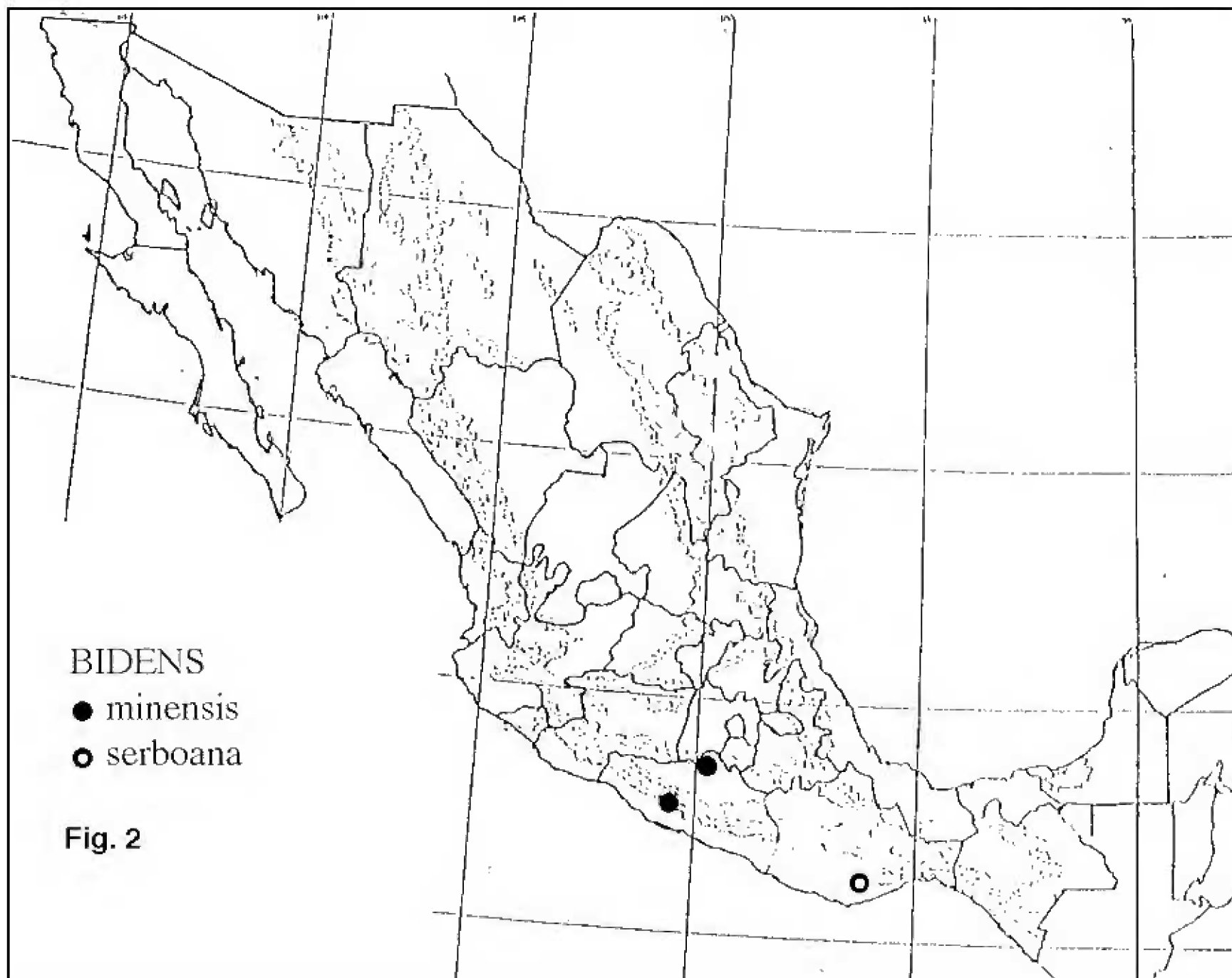


Fig. 2. Distribution of *Bidens minensis* and *B. serboana*.